

SEPARATION TRAY

A B S T R A C T

5 A separation tray for mounting in a vertical
column, which separation tray comprises horizontal
upper and lower walls defining an inner space between
them and at least one primary separation device for
separating fluid into primary gas and liquid-enriched
10 fluid, which primary separation device comprises:
 a vertical tubular conduit having at its lower
end an inlet for fluid, and at its upper end an
outlet conduit for primary gas extending to a primary
gas outlet opening in the upper wall; a swirl-
15 imparting means arranged in the conduit so as to form
of a layer of liquid-enriched fluid in an annular
region adjacent the inner surface of the conduit
downstream of the swirl-imparting means, which
liquid-enriched fluid comprises secondary gas; and
20 which separation tray further comprises a means for
removing and guiding liquid-enriched fluid from the
primary separation device to a secondary separation
means for removing entrained liquid from secondary
gas, wherein the secondary separation means is formed
25 by the free inner space between the upper and lower
walls, which free inner space has in its lower part
an outlet for liquid and in its upper part an outlet
for secondary gas, which extends to a secondary gas
outlet opening in the upper wall separate from the
30 primary gas outlet opening, and wherein the means for
removing and guiding liquid-enriched fluid is
arranged to admit the liquid-enriched fluid
downwardly into the free inner space.